



Publication number: **0 438 281 A3**

12

EUROPEAN PATENT APPLICATION

21 Application number: **91300306.7**

51 Int. Cl.⁵: **H04S 1/00, H04R 5/04**

22 Date of filing: **16.01.91**

30 Priority: **19.01.90 JP 8516/90**

43 Date of publication of application:
24.07.91 Bulletin 91/30

84 Designated Contracting States:
DE FR GB NL

88 Date of deferred publication of search report:
27.05.92 Bulletin 92/22

71 Applicant: **SONY CORPORATION**
7-35 Kitashinagawa 6-Chome Shinagawa-ku
Tokyo 141 (JP)

72 Inventor: **Inanaga, Kiyofumi, c/o Patents Division**
Sony Corporation, 6-7-35 Kitashinagawa
Shinagawa-ku, Tokyo 141 (JP)
Inventor: **Yabe, Susumu, c/o Patents Division**
Sony Corporation, 6-7-35 Kitashinagawa
Shinagawa-ku, Tokyo 141 (JP)
Inventor: **Sogawa, Hiroyuki, c/o Patents Division**
Sony Corporation, 6-7-35 Kitashinagawa
Shinagawa-ku, Tokyo 141 (JP)
Inventor: **Iida, Yasuhiro, c/o Patents Division**
Sony Corporation, 6-7-35 Kitashinagawa
Shinagawa-ku, Tokyo 141 (JP)

74 Representative: **Thomas, Christopher Hugo et al**
D Young & Co 10 Staple Inn
London WC1V 7RD (GB)

54 Acoustic signal reproducing apparatus.

57 An acoustic signal reproducing apparatus for reproducing acoustic signals by headphone devices (2) is disclosed. The left channel and right channel acoustic signals are provided by a device (23) for processing the acoustic signals with constant transmission characteristics from an imaginary sound source to both of the listener's ears. The left channel and right channel acoustic signals, processed in this manner by the device (23), are provided by an acoustic signal processing device (21) with a level difference and time difference consistent with changes in orientation of the listener's head (M).

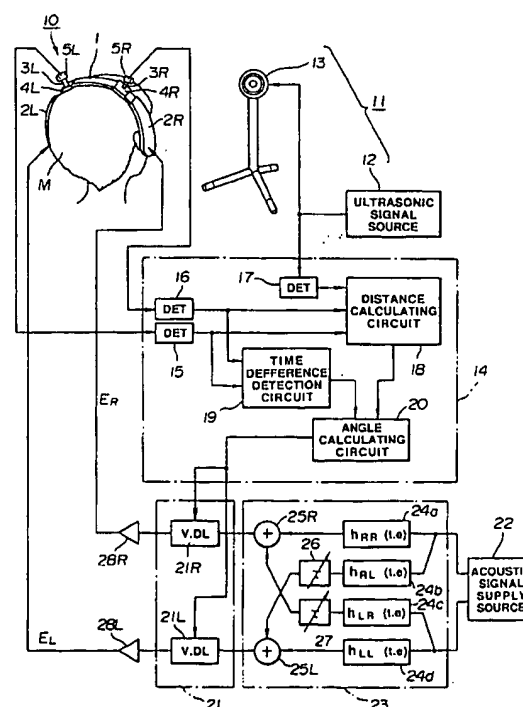


FIG. 1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 30 0306

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	PATENT ABSTRACTS OF JAPAN vol. 13, no. 364 (E-805) 14 August 1989 & JP-A-1 121 000 (SONY) 12 May 1989 * abstract *	1	H04S1/00 H04R5/04
Y	PATENT ABSTRACTS OF JAPAN vol. 7, no. 226 (E-202) 7 October 1983 & JP-A-58 116 900 (SONY) 12 July 1983 * abstract *	1	
A	WD-A-8 903 632 (COOPER ET AL.) * page 9, line 28 - page 11, line 32; figures 1A, 1B *	4	
A	DE-A-2 918 831 (INSTITUT FÜR RUNDFUNKTECHNIK) * claim 1; figure 1 *	5	
A	US-A-3 962 543 (BLAUERT ET AL.)		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H04S H04R
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 07 APRIL 1992	Examiner LAMBLEY
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure F : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

EPO FORM L503 01.82 (P0401)